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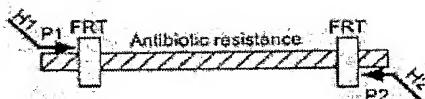
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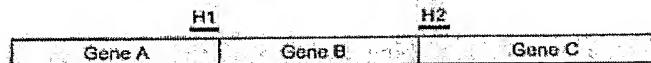
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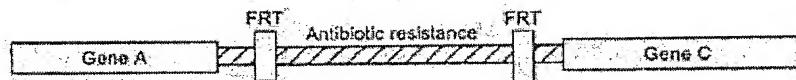
## Step 1. PCR amplify FRT-flanked resistance gene



## Step 2. Transform strain expressing λ Red recombinase



## Step 3. Select antibiotic-resistant transformants



## Step 4. Eliminate resistance cassette using a FLP expression plasmid



(57) Abstract: The present disclosure describes pathogenic bacteria that have been modified to be deficient in NiFe hydrogenase activity; compositions comprising such modified bacteria, and the use of such bacteria to protect animals from pathogenic enteric bacterial infections.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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